

Claims:

1. An electric vehicle that is driven with output power of a motor, said electric vehicle comprising:

5 an accumulator unit that transmits electric power to and from the motor;

 an auxiliary machine that is actuated with a supply of electric power from the accumulator unit;

10 a steering assist structure that is driven with a supply of electric power from the accumulator unit and outputs a steering torque to a steering mechanism;

 a voltage measurement module that measures a voltage of the accumulator unit; and

15 a control module that, when the voltage measured by said voltage measurement module decreases to or below a preset first level, stops the supplies of electric power from the accumulator unit to the auxiliary machine and to the motor.

2. An electric vehicle in accordance with claim 1, wherein
20 the preset first level is higher than a minimum drive voltage required for proper operation of the steering assist structure.

3. An electric vehicle in accordance with claim 1, wherein
 said control module, in response to a decrease in measured
25 voltage to or below the preset first level, stops the supply of electric power to the auxiliary machine prior to the stop

of the supply of electric power to the motor.

4. An electric vehicle in accordance with claim 3, wherein
said control module stops the supply of electric power to the
5 auxiliary machine in response to the decrease in measured
voltage to or below the preset first level, and stops the supply
of electric power to the motor in response to a further decrease
in measured voltage to or below a preset second level that is
lower than the preset first level.

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5. An electric vehicle in accordance with claim 1, wherein
said control module stops the supply of electric power from the
accumulator unit to the steering assist structure when the
measured voltage decreases to a preset third level that is lower
15 than the preset first level.

6. An electric vehicle in accordance with claim 5, wherein
said control module, in response to the decrease in measured
voltage to the preset third level, gradually decreases the
20 steering torque output from the steering assist structure to
the steering mechanism, prior to the stop of the supply of
electric power to the steering assist structure.

7. An electric vehicle in accordance with claim 6, wherein
25 said control module implements the gradual decrease in steering
torque in a predetermined time period, prior to the stop of the

supply of electric power to the steering assist structure.

8. An electric vehicle in accordance with any one of claims
1 through 7, wherein the auxiliary machine is an air
5 conditioner.

9. An electric vehicle in accordance with any one of claims
1 through 7, said electric vehicle further comprising:
an internal combustion engine; and
10 an electric power-mechanical power input output
structure that is connected to an output shaft of the internal
combustion engine and to a drive shaft linked with an axle of
said electric vehicle and outputs at least part of output power
of the internal combustion engine to the drive shaft through
15 input and output of electric power and mechanical power,
wherein the motor is connected with the drive shaft to
input and output power from and to the drive shaft.

10. An electric vehicle in accordance with claim 9,
20 wherein,

the electric power-mechanical power input output
structure comprises: a three shaft-type power input output
mechanism that is linked to three shafts, that is, the output
shaft of the internal combustion engine, the drive shaft, and
25 a third rotating shaft, and automatically determines power
input from and output to a residual one shaft based on powers

input from and output to any two shafts among the three shafts;
and a generator that inputs and outputs power from and to the
third rotating shaft, and

said control module stops a supply of electric power to
5 the generator accompanied with the stop of the supply of
electric power to the motor.

11. A control method of an electric vehicle that is driven
with output power of a motor, said electric vehicle comprising:
10 the motor; an accumulator unit that transmits electric power
to and from the motor; an auxiliary machine that is actuated
with a supply of electric power from the accumulator unit; and
a steering assist structure that is driven with a supply of
electric power from the accumulator unit and outputs a steering
15 torque to a steering mechanism,

said control method comprising the steps of:

(a) measuring a voltage of the accumulator unit; and
(b) when the voltage of the accumulator unit measured in
said step (a) decreases to or below a preset first level,
20 stopping the supplies of electric power from the accumulator
unit to the auxiliary machine and to the motor.

12. A control method of an electric vehicle in accordance
with claim 11, wherein said step (b), in response to a decrease
25 in measured voltage to or below the preset first level, stops
the supply of electric power to the auxiliary machine prior to

the stop of the supply of electric power to the motor.

13. A control method of an electric vehicle in accordance with claim 12, wherein said step (b) stops the supply of electric
5 power to the auxiliary machine in response to the decrease in measured voltage to or below the preset first level, and stops the supply of electric power to the motor in response to a further decrease in measured voltage to or below a preset second level that is lower than the preset first level.

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14. A control method of an electric vehicle in accordance with claim 11, said control method further comprising the step of:

in response to the decrease in measured voltage to the
15 preset third level that is lower than the present first level, gradually decreasing the steering torque output from the steering assist structure to the steering mechanism, prior to the stop of the supply of electric power to the steering assist structure.